

REMARKS

Claims 1, 2, 5, 7, 8, 10 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec (“Niemiec”) in view of U.S. Patent No. 4,508,033 to Fischer (“Fischer”), U.S. Patent No. 3,238,869 to West et al. (“West”), and U.S. Patent No. 3,875,682 to Justus et al. (“Justus”). Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Fischer, West and Justus, and further in view of U.S. Patent No. 6,550,390 to Frankenberger (“Frankenberger”). Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Fischer, West and Justus, and further in view of U.S. Patent No. 5,913,471 to Makosch (“Makosch”).

By this amendment, claims 1, 2, 7, 8, 14, 15, 17, 18, 20 and 22 are amended and new claims 23 to 26 are added to more particularly and distinctly claim the invention. Reconsideration of the application based on the amendments and these remarks is respectfully requested.

Rejections under 35 U.S.C. §103(a)

Claims 1, 2, 5, 7, 8, 10 to 18 and 20 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Fischer, West and Justus.

Niemiec discloses a printing press which includes a series of printing units 16 for printing an unwound web 14 from unwind station 12. (Niemiec, Fig. 1). After printing, the web 14 passes sequentially through a floater oven 18 and chiller rolls 20 before passing to a sheeter/folder-/rewinder station 22. (Id.).

Fischer discloses a printing press in which a web 13 from roll support spider 7 is sequentially printed by four print units 1 to 4, and then sequentially passed to a dryer 8, a cooling station 9 and a folding device 11. (Fischer, Fig. 1). A web tension monitoring device 10 is provided at the output of the last printing unit 4. (Id.). In addition, a paper web capturing apparatus 12 is provided between

the last printing unit 4 and the dryer 8 and serves to slightly increase the tension on the web 13 as it exits the last printing units and, in the event of a tear in the web 13, captures the web 13 by allowing web 13 to wind around one of rollers 14, 15. (Fischer, col. 3, lines 1 *et seq.*).

West discloses a label imprinting apparatus which includes two front guides 160 and 161 at the output of printing cylinder 30 and serve to prevent printed labels from sticking to the printing cylinder 30. (West, Fig. 3, col. 10, lines 3-12).

Justus discloses a driven edge roll 16 mounted in a drum dryer positioned at the edge of a web W so that it applies pressure to the web W. (Justus, Fig. 1). The edge roll 16 is driven at a speed of between 50 and 100 percent, preferably 75 percent, of the speed of web travel to eliminate flutter of the web W within the dryer. (Justus, col. 2, line 65 to col. 3, line 6). Notably, the edge roll 16 does not extend across the entire web W and thus does not affect the speed of travel of the web W itself. As a result, since the edge roll 16 is placed between dryer drums 13 and 14, it does not appear that the edge roll 16 operates to convey the web or affects the tensile stress of the web W at points prior to dryer drum 13 at all.

Claim 1, as amended, is addressed to “[a] web-fed rotary printing press, comprising:
at least one press cylinder for printing a paper web conveyed at a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer guiding the web along a path;

a pull roll disposed downstream of said dryer for **conveying the paper web** along said path under **a second tensile stress**;

a first apparatus disposed downstream of said press cylinder and upstream of said dryer for separating the paper web from said press cylinder during a normal printing operation, said separating of the paper web from said press cylinder being decoupled from the conveying of said paper web along said path; and

a second apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress.” (emphasis added).

Claim 7 as amended is addressed to “a web-fed rotary printing press, comprising:
at least one press cylinder for printing a paper web conveyed under a controllable first tensile stress;

a dryer disposed downstream of said press cylinder, said dryer guiding the paper web along a path;

a first pull roll disposed downstream of said dryer to convey the paper web along the path under a second tensile stress;

a second pull roll, which is disposed downstream of said press cylinder and upstream of said dryer, for releasing the paper web during a normal printing operation and for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll; and

an apparatus for driving said first pull roll at a controllable rotational speed which sets said second tensile stress.” (emphasis added).

In rejecting claim 1, the Examiner cites to Justus as disclosing the “pull roll” and “second apparatus” elements of claim 1. Likewise, the Examiner cites to Justus as disclosing the “first pull roll” and “apparatus” elements of claim 7 in rejecting claim 7. However, as discussed above, the driven edge roll 16 of Justus is not used to convey the web or to set the tensile stress of the web, in contradistinction to the claimed “pull roll” (or “first pull roll”) which “convey[s] the paper web along said path under a second tensile stress” and the claimed “second apparatus” of claim 1 or “apparatus” of claim 7 which both are “for driving said pull roll at a controllable rotational speed which sets said second tensile stress.” Since the cited prior art combination, i.e., Niemiec, Fischer, West and Justus, does not teach or suggest the “pull roll” and “second apparatus” limitations of claim 1 or the “first pull roll” and “apparatus” limitations of claim 7, claims 1 and 7, and the claims dependent thereon, are thus not obvious over the cited prior art combination.

Furthermore, dependent claim 2 as amended requires ‘a controller coupled to said at least one press cylinder and to said second apparatus, **said controller setting said first tensile stress and said second tensile stress** such that said second tensile stress is **10% or less** than said first tensile stress.’” (emphasis added). Similarly, dependent claim 8 as amended requires “a controller coupled to said at least one press cylinder and to said apparatus, **said controller setting said first tensile stress and said second tensile stress** such that said second tensile stress is **10% or less** than said first tensile stress.” (emphasis added). None of Niemiec, Fischer, West and Justus teaches or suggests a controller used to controllably set two different tensile stress levels on the web as it passes through a printing press and none teaches or suggests setting two tensile stress levels in the claimed proportion of “10% or less” as specifically required by claims 2 and 8. Claims 2 and 8 are thus not obvious over the cited prior art combination for this additional reason.

Claim 14 as amended is addressed to “[a] method for treating a printing material web in a printing material web in a web-fed rotary printing press, which further comprises:

feeding a paper web to a press cylinder under a **first controllable tensile stress**;
printing on the paper web using the press cylinder;
conveying the paper web along a drying path under a **second controllable tensile stress** of the paper web which is **controllably set to be equal to or less than 10% of the first controllable tensile stress**; and

separating the paper web from the press cylinder during a normal printing operation, the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path.” (emphasis added).

Claim 14 as amended requires that a web be fed to “a press cylinder under a first controllable tensile stress” and then be conveyed “along a drying path under a second controllable tensile stress of the paper web which is **controllably set to be equal to or less than 10% of the first controllable tensile stress**.” None of Niemiec, Fischer, West and Justus teaches or suggests a controller used to controllably set two different tensile stress levels on the web as it passes through a printing press, and none teaches or suggests setting two tensile stress levels in the claimed proportion of “equal to or

less than 10%” as specifically required by claim 14. Thus, claim 14, and the claims dependent thereon, are not obvious over the cited prior art combination.

Since the combination of Niemiec, Fischer, West and Justus does not teach or suggest, alone or in combination, each and every limitation of independent claims 1, 7 and 14, claims 1, 7 and 14, and the claims dependent thereon, are not unpatentable as obvious over Niemiec in view of Fischer, West and Justus. Thus, withdrawal of the rejections of claims 1, 2, 5, 7, 8, 10 to 18 and 20 to 22 under 35 U.S.C. §103(a) is respectfully requested.

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Fischer, West and Justus, and further in view of Frankenberger.

Frankenberger discloses an apparatus for releasing a paper web from a cylinder using ultrasonic waves. (Frankenberger, Fig. 1, col. 4, lines 31 *et seq.*)

Claims 3 and 4 are dependent on independent claim 1. As discussed above, Niemiec in view of Fischer, West and Justus does not render claim 1 unpatentable as obvious. Thus, since Frankenberger does not disclose the limitation of claim 1 missing from the cited combination as discussed above, claims 3 and 4 are likewise not unpatentable as obvious over Niemiec in view of Fischer, West and Justus, and further in view of Frankenberger. Withdrawal of the rejections of claims 3 and 4 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Niemiec in view of Fischer, West and Justus, and further in view of Makosch.

Makosch discloses a separating roll 3, 4 for a printing press having respective outer surfaces 3a, 4a made from an ink-repellent material. (Makosch, Fig. 1, col. 3, lines 35-37).

Claim 6 is dependent on independent claim 1 and claim 9 is dependent on independent claim 7. As discussed above, Niemiec in view of Fischer, West and Justus does not render claims 1 and 7 unpatentable as obvious. Thus, since Makosch does not disclose the limitation of claims 1 and 7 missing from the cited combination as discussed above, claims 6 and 9 are likewise not unpatentable as obvious over Niemiec in view of Fischer, West and Justus, and further in view of Makosch. Withdrawal of the rejections of claims 6 and 9 under 35 U.S.C. §103(a) on this basis is thus respectfully requested.

New Claims 23 to 26

New claims 23 to 26 are allowable for all the reasons discussed above with respect to claims 1, 2, 7 and 8 and the allowance thereof is respectfully requested.

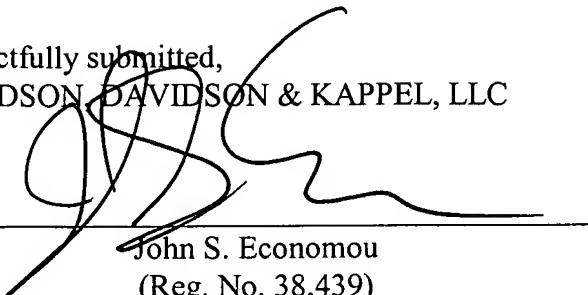
CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

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Respectfully submitted,
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